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ABSTRACT

During the 1976-77 academic year the Ganado (Arizona) Title VII Bilingual Education Project operated within a Cooperative Teaching Model based on language roles. Each teacher was assigned a role based on language responsibility: English language teachers concentrated on teaching English as a second language, while Navajo language teachers taught cognitive skills in Navajo, including initial literacy, science, social studies, and math. The model operated on a departmentalized-homeroom basis: during the morning children rotated from subject to subject and in the afternoon they remained in their homeroom where the teaching reinforced concepts taught during the morning. The program involved 5 kindergarten classrooms (114 students) and 6 first grade classrooms (137 students). Assessment of in-service staff training and development, parent involvement, materials development, objectives and goals, and student progress led to the following conclusions: good progress in student achievement was evidenced in all areas of the curriculum; the areas of greatest achievement were in Navajo social studies and the development of oral English language production, and standardized English achievement tests were inappropriate to evaluate student achievement in a Navajo language curriculum. Recommendations called for program refunding, expansion to the second grade, delaying introduction of English reading until the second grade, and review of the overall instruction model. (NEC)

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Title VII Project 1976-77

Saad Naaki Bee Olta'

GANADO PUBLIC SCHOOLS

FINAL EVALUATION REPORT

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RC 011914

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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GANADO TITLE VII PROJECT

Final Evaluation Report

This is the final evaluation report of the Ganado Title VII Project for the academic year 1976-1977. The Ganado Public Schools Bilingual Education Project--Saad Naaki Bee Olta'--operates within a model referred to as the Coperative Teaching Model. This model is based on language roles. Each teacher in the project is assigned a role based on a language responsibility. Teachers who teach in English are referred to as English Language Teachers (ELT) and those who teach in Navajo as Navajo Language Teachers (NLT). The primary function of the ELT is to concentrate on teaching English as a second language. The NLT's role is to teach cognitive skills in Navajo, including initial literacy, science, social studies, and math. Each NLT is responsible for a specific subject area. The model operates on a departmentalized-homeroom basis for kindergarten and first grade. During the morning children rotate from subject to subject. In the afternoon they remain in their homeroom where the teaching reinforces concepts taught in the morning.

There are 5 kindergarten classrooms participating in the project with a total of 114 students. There are 6 first grade classrooms with a total of 137 students in the program. The project is functioning as outlined in the application proposal, with one modification in the overall operation. Kindergarten students rotate 4 days a week in the departmentalized-homeroom model, and remain in self-contained rooms on Fridays.

The evaluation data and results comprising this report will be presented in the following subsections: I) Overall Management; II) Staff Development and In-service Training; III) Parent Involvement; IV) Materials Development; V) Assessment of Objectives and Goals; VI) Summary of Student Progress; and VII) Conclusions and Recommendations.

I. Overall Management of the Project

The project director and the school principal work well together in administering all aspects of the project. They both agree on the basic objectives of the bilingual education program. The principal is the line supervisor while the project director is responsible for carrying out the functions of the project and assisting the principal. There was a break of approximately a month between the resignation of the previous project director and the hiring of the new director. This interruption in administration did not negatively effect the project.

II. Staff Development and In-service Training

All staff positions were filled during the project year and functioned as prescribed in the application proposal. Two positions were vacant for various periods of time. The secretary position was not filled until the second semester due to the unavailability of trained applicants. The position of project director was vacant for a period of one month (December 1976). Parent aides were an integral part of the project model, but were funded under Johnson O'Malley monies. JOM funds were not received by the school district until February 1977, at which time the parent aides were finally hired.

Staff training consisted of two components. The first component was college credit course work both on-site and on the campuses of Northern Arizona University and the College of Ganado. During the school year college course work was brought to the school district from Northern Arizona University for teachers and administrators. Teacher aides took Speech 110 at the College of Ganado. During the summer of 1976 teachers took courses at Northern Arizona University with emphases on bilingual education and native language materials development, and teacher aides took courses at the College of Ganado.

The second staff training component consisted of in-service training workshops, demonstrations, and formal and informal staff meetings. A DISTAR workshop in October 1976 concentrated on use of the Distar language and reading materials. In March 1977 a week-long workshop was conducted by CACTI, the regional Lau Center, dealing with cultural materials and magic circle techniques. The project held regular weekly meetings during the first semester, and informal meetings and what the project described as sharing sessions were ehld approximately every 2 weeks during the second semester.

A total of 4 college courses were provided during the academic year in the school district; 2 courses were provided during the Northern Arizona University summer session of 1976 and two will be provided during the summer of 1977. The following in-service workshops were held during the year:

1) Pre-service workshop
2) Workshop training for administering the TOLD and SESAT standardized tests
3) DISTAR workshop
4) CACTI workshop
5) Classroom management workshop

See Appendix A for a list of specific courses, workshops, and the number of participants.

III. Parent Involvement

The project involved parents and members of the local community in school to a high degree. Parents participated in actual instruction in the project classrooms. It was the project's policy that parents and PAC members were welcome to visit and observe in classrooms at all times. Many such visits by parents were made.

The Parent Advisory Committee was composed of eleven parents. Prospective members were contacted in the community by letters, at chapter meetings, and by the Parent Coordinator of the project. Chapter meetings were attended by the Parent Coordinator at which she informed each community of openings. In follow-up meetings she informed the chapter officers of selection procedures and they approved the selection of members from their chapters. The PAC met monthly to approve or recommend project modifications. One of the evaluators attended a PAC meeting; a summary of the observations is included in the Site Visit reports attached. Members of the PAC were also actively involved in the school, visiting classrooms and assisting with teaching of traditional Navajo cultural activities.

As a portion of the JOM funded program, the Title VII project had 12 parent aides who worked one half a day in the kindergarten and first grade classrooms. These parents also functioned as liaison between the community and the school, increasing communication in both directions. The parents participated in an adult education class for one hour per day. For an hour after school they also worked with the Parent Coordinator, developing their teaching skills and making traditional arts and crafts and preparing such materials for use by children in the classrooms. Parents participated in teaching Navajo music and social studies and also worked on some math and literacy skills in Navajo with small groups of children in the classrooms. The parent involvement program has stimulated some school-community activities, such as a pow wow held recently. Schools from surrounding communities were invivted and activities included children's dances and songs, parents' traditional arts and crafts.

IV. Materials Development

The materials developed by the project were for immediate use in the classrooms. The project staff felt the materials are not refined to the point they are ready to be published. The materials developed for teaching initial reading in Navajo are very well done, and if the teacher is able to revise them, they would be appropriate for publication.

The majority of the project developed materials were designed for individual classrooms to assist the teachers in achieving their teaching goals. They included such materials as alphabet cards, instructional games, bulletin

boards and visual aides, in addition to the literacy materials. The parent aides, working with children, produced fine examples of Navajo arts and crafts, including small rugs, dolls, baskets, and articles of traditional clothing.

The Ganado Title VII staff have shared some of their materials with other schools on the Navajo reservation. Two teachers demonstrated their materials at a workshop in the Kayenta Public Schools. Informal dissemination occurred on a continuous basis with the large number of observers from other schools and projects who visited the Ganado bilingual education project.

See Appendix B for a list of project developed materials.

V. Assessment of Objectives and Goals

On the following pages each goal and each objective is written, followed by the results of the final assessment for the project year. Following the narrative is a chart summarizing student progress for the year on the objectives and goals.

A. Assessment of Objectives

1. General Achievement: 50% of the kindergarten children will score at the Navajo Area Norms on the Navajo version of the Stanford Early School Achievement Test (SESAT), letter/sound and mathematics subtests.

Instrument: SESAT (Navajo)
Assessment: On the letters/sounds subtest, 59% of the students tested scored at or above the Navajo Area norm. On the mathematics subtest 39% of the students scored at or above the local norm. This objective was met for the skills tested by the letters/sounds subtest, but not for the mathematics skills tested.

2. General Achievement: 80% of the kindergarten children will achieve 85% of the kindergarten teaching objectives in the cognitive, affective, and psycho-motor domains.

Instrument: Kindergarten criterion referenced tests
Assessment: The achievement of 70 students was reported for this objective. 49 of these students had mastered at least 85% of the kindergarten teaching objectives. Overall, 70% of the students met the objective. Although this shows substantial progress in the standard primary grades curriculum areas, the established criterion level of the objective, 80%, was not met.

(Assessment of objectives)

3. English Achievement: 80% of the Navajo dominant kindergarten children will increse their TOLD score in both English and Navajo by at least 10 points.

Instrument: Test of Language Dominance (TOLD)
Assessment: The post-test with the TOLD was administered in April 1977. 67% of the students tested showed an increase of ten points (.10 raw score) over their pre-test score. This increase shows substantial progress, but the objective criterion of 80% was not met. It should be noted that there is serious doubt about the reliability of this test for measuring the factors requested in the objective--improvement in oral ability in two languages. Furthermore, the extreme variability in pre-test scores compared to post-test scores over the whole group raises questions about the validity of the test, or the training procedures and directions provided for administrators.

4. Navajo Literacy: 70% of the Navajo dominant kindergarten participants will identify the Navajo phonemes with 80% accuracy.

Instrument: List of graphemes.
Assessment: Achievement scores for this objective were reported for only one class. 20 students were tested; 12 of them met or exceeded the established criterion level. 60% of the class met the objective. Since only one class reported achievement, and that class did not meet the overall criterion level, this objective was not met.

5. English Achievement: 80% of the Navajo dominant kindergarten participants will demonstrate understanding of English by responding to requests made by the teacher with 90% accuracy.

Instrument: Project designed instrument
Assessment: 96 children were tested. 90 students passed the objective. Overall, 94% of the children met the objective. This is significantly high since 78 students had to pass the objective to meet the established criterion. Student progress on this objective was far beyond the criterion level.

6. Language Production: 70% of the kindergarten participants will be able to engage in conversation with peers and/or teachers about home and school experiences for a period of at least 1 minute in Navajo and English.

Instrument: Student observation
Assessment: 90 of 97 students were able to converse in English for a minute. 71 of 93 students were able to converse in Navajo for a minute. Overall, 84% of the students met the objective. The students' achievement exceeded the established criterion.

(Assessment of Objectives)

7. Navajo Social Studies: 80% of the participants will be able to perform at least one Navajo dance.

Instrument: Student observation
Assessment: 86 of 88 students observed met this objective. 98% of the students met the objective. Achievement far exceeded the established criterion of 80%.

8. Navajo Social Studies: 80% of the participants will be able to sing 2 Navajo songs.

Instrument: Student observation
Assessment: 88 students were tested; 73 met or exceeded the objective. Overall 83% of the students met this objective, so the objective was achieved.

9. English production: Each child will be able to recite 1 nursery rhyme in English.

Instrument: Student observation, given a specific rhyme.
Assessment: 97 students were tested of which 90 met the objective. The achievement level was 93%, which far exceeded the established criterion.

10. English Production: Each child will be able to sing at least 1 song in English.

Instrument: Student observation, given a specific song.
Assessment: 94% of the students were able to sing one song in English. Again, this was significant progress in the area of oral English skills.

11. General Achievement: 75% of the first grade participants will score at the Navajo Area Norms on the SESAT, letter/sounds and mathematics subtests.

Instrument: SESAT
Assessment: On the letters/sounds subtest, 77% of the students tested scored at or above the Navajo Area norm. On the mathematics subtest, 63% of the students scored at or above the local norm. For the skills measured by the letters/sounds subtest, achievement met the criterion level of this objective; for the mathematics subtest, achievement was 12% short of the objective. This objective was partially met.

12. General Achievement: 60% of the first grade participants will score at grade level on the California Achievement Test in mathematics and reading at the end of the year.

Instrument: CAT
Assessment: The CAT was administered district-wide in April 1977. District policy determined that the second grade level test was to be administered in the project's first grade classrooms. The mean score for the CAT in April is 1.7 (for first grade). 24% of the students achieved at or above the national norm on the reading subtests; 38% scored at or above the national norm on the mathematics subtests. The criterion level of the objective was not

(Assessment of Objectives)

12. (continued)

met. However, it was an extremely inappropriate level, since 60% scoring at the mean would be an expectation above the national norm, which would be 50% of the students scoring at the mean. This level would not be an appropriate expectation for a population of middle-class native English speaking students, and is definitely not indicated in this situation. Furthermore, it seems inappropriate to set an objective of this sort in reading in English when the students are taught reading primarily in Navajo. Research indicates that results of initial literacy in students native language can be impressive after several years of reading instruction. It is contradictory to expect children taught in Navajo to show great improvement on an English reading test. In the case of the Ganado first grade students, they had been exposed to a maximum of three months of reading in English at the time of this test.

13. Navajo Literacy: 80% of Navajo dominant first graders will be able to read 25 Navajo words of one or two syllables with 85% accuracy.

Instrument: List of 25 one or two syllable words.
Assessment: Pre-test data showed students performed with about 9% accuracy in December 1976. At the post-test 32 of 89 first graders scored 85% or better on the test instrument. One first grade class had 20 of 23 students pass this objective. Overall, 36% of the students met the objective, although 54% scored as much as 70% or better. Although Objective 13 was not met, there seems to be evidence that much progress was made in developing an initial literacy program in Navajo.

14. Navajo Literacy: 70% of the Navajo dominant first graders will be able to write 20 words of one or two syllables dictated by the teacher with 75% accuracy.

Instrument: List of 20 one and two syllable words.
Assessment: 24% of the first grade students scored 75% or better on the test instrument. In one classroom over 50% of the students met or exceeded the criterion. Objective 14 was not met, but progress in developing initial Navajo literacy is being made.

15. Language Production: 70% of the first grade participants will be able to engage in conversation with peers and/or with teachers about home and school experiences for a period of at least 2 minutes in Navajo and English.

Instrument: Student observation.
Assessment: Children were tested in both Navajo and English by two different examiners. The overall results were identical, 89% of the students meeting or exceeding the criterion in Navajo and 89% in English. This objective was met and, in fact, far exceeded by the students.

(Assessment of objectives)

16. Navajo Social Studies: 80% of the participants will be able to sing 3 Navajo songs.

Instrument: Student observation, given 3 specific songs.
Assessment: 90 of 90 students tested could sing all three songs. In fact, the test instruction was to sing six songs. Performance was 100%. Objective 16 was met.

17. Navajo Social Studies: 80% of the participants will be able to perform two Navajo dances.

Instrument: Student observation, given 2 dances.
Assessment: The criterion for this objective was met by 100% of the students. 90 of 90 students could perform at least two dances. The students far exceeded the objective.

18. English Production: Each child will be able to recite two nursery rhymes in English.

Instrument: Snudent observation
Assessment: 73 of 88 students tested could recite at least two nursery rhymes or stories in English. This objective was met by 83% of the children.

19. English Production: Each child will be able to sing at least two songs in English.

Instrument: Student observation
Assessment: 91% of the students could sing two or more songs in English. 79 of 86 students met the criteria of this objective, and represents overall accomplishment of the objective.

20. General Achievement: (This objective was modified from the original proposal.) The kindergarten students will show an average gain of 7 raw score points on the SESAT subtest Letters and Sounds, and 6 raw score points on the Mathematics subtest, administered in September and in April. The first grade students will show an average gain of 7 raw score points on the SESAT Subtest Letters and Sounds, and 6 points on the Mathematics subtest, administered in September and in April.

Instrument: SESAT (Navajo version)
Assessment: The kindergarten students showed an average gain of 8.6 raw score points on the Letters and Sounds subtest, exceeding the criterion of the objective. They averaged 3.2 raw score points gain on the Mathematics subtest, not meeting the objective in this portion. At kindergarten, this objective was partially met.
First grade students averaged a gain of 5 raw score points in Letters and Sounds, and 3.7 points in Mathematics. Neither area met the criterion of the objective. The usefulness of this test (Navajo SESAT) as a measure of student progress in academic skill areas is questionable. The direct translation from English is known to be inappropriate in some areas of the test, and its value as an appropriate measure of young children's Navajo language ability is also questionable.

(Assessment of objectives)

21. Mathematics Achievement: 80% of the students will be able to solve 5 story problems read to them in Navajo and English with 80% accuracy.

Instrument: Selected problems from the text
Assessment: 87 students were tested and 75 met or exceeded the criterion of this objective. Overall 86% of the students scored 80% or better on the test instrument. 47% of the students tested made a perfect score. Objective 21 was met, and for 47% of the students, it was far exceeded.

22. Eleven selected parents will be involved in learning experiences which parallel those of their children in ESL and basic education.

Instrument: Observation; review of records
Assessment: Parents were involved in basic education activities similar to those of their children. They did not receive ESL that paralleled the students', although they received some ESL lessons and observed ESL lessons taught to their children. Therefore, this objective was only partially met.

23. The Parent Advisory Committee will enable parents to assist in the planning, implementing, and evaluating of a bilingual program for their children. Parent involvement will be reflec ted in the following manner: parent attendance at PAC meetings will increase over the attendance of the previous year.

Instrument: Interview of principal; review of records, and attendance at PAC meetings.
Assessment: Parent attendance at PAC meetings has increased in two ways over the past year. Regular Title VII PAC meetings only began in February of the previous project year. For this year, meetings were held monthly, except for one month when the project director's position was vacant, from September to May. Average attendance at PAC meetings the previous year was 8; this year it was 9. This objective was met, both in terms of increased attendance at PAC meetings and increased interest shown by parents in the project.

24. After one year's exposure to the ESL instruction, 100% of the parents participating in the Parent ESL program will improve their proficiency in the English language as measured by the TOLD.

Instrument: TOLD
Assessment: Parent aides were hired by the project in February 1977 due to difficulties with Johnson O'Malley funding. Therefore, one year's exposure to ESL instruction was not possible. The project did not administer a pre-test with the TOLD. Therefore, this objective could not be assessed.

B. Assessment of Goals

1. The Navajo dominant kindergarten children will receive readiness in the Navajo language.

Instrument: Classroom observations; interviews of teachers (see Appendix for copy of the interview form.)
Assessment: Children in kindergarten received reading readiness in Navajo. Children in first grade continued to receive readiness and actually learned to read in Navajo, but also received readiness in English. In general this goal was met, Navajo dominant children received reading readiness instruction in Navajo.

2. Reading in English will be delayed until the child has developed a reasonable proficiency in English.

Instrument: Interviews of teachers; classroom observations
Assessment: Children did receive initial reading instruction in Navajo prior to beginning reading in English. Initial reading in English was not based on proficiency in Navajo reading, but rather determined by an arbitrary time schedule of the beginning of the second semester of first grade. This goal was met in terms that initial reading instruction was in Navajo while the children learned English orally, but the transition to English reading was not based on development of proficiency.

3. The Navajo language will be utilized to instruct and evaluate in-coming first grade students who are Navajo dominant and who have not had the benefit of a bilingual program.

Instrument: Interviews of teachers
Assessment: This goal was met. Entering first graders who had not had bilingual instruction were evaluated and instructed in the Navajo language.

4. The English language will be utilized more to instruct and evaluate first grade students who have had the benefit of one year's participation in the bilingual program. It will be in the ratio of 25% English to 75% Navajo.

Instrument: Interviews of teachers
Assessment: This goal was met. Both Navajo and English were used for instruction and evaluation of first graders. The exact time ratio of 75% to 25% may not have been adhered to precisely.

5. 50% of the English dominant children of Anglo and Navajo origin will achieve a knowledge of Navajo nouns and phrases that will allow them to interact socially with Navajo speaking children.

Instrument: Interviews of teachers
Assessment: English dominant children were observed to interact with Navajo dominant children and were learning enough Navajo phrases to participate socially with Navajo speaking children. This goal was met.

(goals)

6. All participants will receive instruction in Navajo history and culture leading to bicultural-multicultural awareness.

Instrument: Interviews of teachers; classroom observations
Assessment: All students received instruction in Navajo history and culture in their classrooms. This goal was met.

7. The staff who have continued in the program will be able to assist the director in evaluating the project, suggesting improvements, and giving in-service training to new staff members.

Instrument: Interview of project director
Assessment: The staff was involved in evaluating the program in an informal manner. The staff often made suggestions for improvement, and a good deal of informal interaction between new and old staff members occurred, which may have been the most valuable form of in-service training. This goal was met.

8. Through a program of Navajo studies, the staff will acquire an understanding of the basic structure of the Navajo language and will be better able to understand the difficulties which the Navajo child has in learning to speak English.

Instrument: Interviews of teachers; review of courses
Assessment: Administrators felt the ESL methodology course offered at the school provided an opportunity through contrastive analysis of Navajo and English to understand basic Navajo structure. Some teachers felt more opportunity to learn Navajo were needed. Classroom observations indicated that teachers are aware of many of the difficulties Navajo children have learning English. The goal was met, but not to the degree desired by the teaching staff.

9. The non-Navajo speaking teachers will acquire an appreciation of Navajo culture and the problems faced by the Navajo child.

Instrument: Interviews of teachers and project director.
Assessment: At least two workshops were conducted in this area for the staff. There also seems to have been a great deal of staff interaction and activities such as sharing traditional customs, foods, kinship, etc. This goal was met.

10. The project staff will devise native language assessment materials to assist children to achieve the curriculum objectives.

Instrument: Review of materials, interview of project director
Assessment: Several teacher-made tests were developed for assessing objectives and instruction in Navajo. None of these instruments were refined for publication. The goal was met.

(goals)

11. Weekly team meetings will be held to develop a system of cooperative teaching utilizing the specialized skills of both the Navajo and non-Navajo teachers to meet the special needs of children of limited English ability.

Instrument: Interviews of teachers and principal
Assessment: Formal weekly meetings were held until the end of the first semester; after that meetings were held on an informal basis. The administration believes these were effective in meeting the needs of the staff and students. In general, this goal was met.

12. After exposure to ESL instruction and basic education, the parents participating will form a nucleus of an adult basic education program for the Ganado area. Their performance in the basic subjects will be commensurate with the time devoted to formal isntruction and individual application.

Instrument: Interview of project director and instructors
Assessment: An adult basic education program was developed. ESL was not a functional component of the program, but the program offered instruction in basic areas the parents felt they needed strength in. This goal was met in terms that an adult basic education foundation was established.

13. Home-school communication will be significantly more open. Parents involved in the Title VII program will greatly enhance public relations and awareness of the school.

Instrument: Observation of PAC meetings; interview of Parent Coordinator
Assessment: From the records of the Parent Coordinator and minutes of the PAC meetings there was a strong indication that home-school communication had increased and that parents were more aware of the total school program and more involved in the Title VII program. This goal was met.

14. The Parent Coordinator will play a vital role in knitting closer home-school relationships.

Instrument: Interview of parent coordinator
Assessment: The Parent Coordinator seems to have had a significant role in the whole home-school program. Both administrators and teachers felt she had been a vital factor in increasing parent involvement and communication between home and school. This goal was met.

15. By the end of 5 years, the program will have assessed the desires of the parents with regard to the extent bilingual education will be carried through the educational system and whether they favor a transitional or maintenance program for the Navajo language.

Instrument: Interviews and observation
Assessment: In the third year of the project there definitely seemed to have been an increase in parent involvement and awareness of the school program. By the end of the fifth year parents should be able to determine what type of bilingual program, maintenance or transitional, they want for their school.

(goals)

16. 100% of the parents in the ESL component will be able to work with the children in language arts activities.

Assessment: Progress toward meeting this goal was reported for the first grade only. This goal was not met, primarily because parents were not hired until mid-year due to funding problems. Parents did not have an opportunity to develop more than a limited amount of English in the ESL course. The ESL course functioned more as an adult basic education course than an ESL course. Consequently the majority of parent aides were unable to participate in the English language arts in the classroom.

17. The parent aides will provide 80 minutes of instruction per week in the Navajo language.

Assessment: Progress was reported by the first grade teachers only, indicating that this goal was met by at least the parent aides working in the first grade classrooms. Parents provided at least 80 minutes of instruction in Navajo during the school week.

18. Parent aides will work with Navajo children to help them learn their culture in their own language.

Assessment: This goal was met at the first grade level (no information available from the kindergarten). Parents assisted students in cultural activities, using Navajo as the medium of instruction during such activities.

19. Parent aides will help children who are Navajo dominant to learn some basic concepts in Navajo first. Parent aides will assist in bicognitive development.

Assessment: At the first grade level this goal was met. Again, no information was available for the kindergarten level. Parents assisted teachers in presenting basic concepts in Navajo, sometimes working in small groups with children.

TABLE I

Summary of Student Achievement by Objective

Objective #	Area	Met	Not met	Level of Achievement
1.	General Achievement (Kdg)	1/2	1/2	59% on Letters & Sounds 39% on Mathematics
2.	General Achievement		X	70% of the students
3.	English Achievement		X	67% of the students
4.	Navajo Literacy		X	60% of one class
5.	English Achievement	X		94% of the students
6.	Language production	X		84% of the students
7.	Navajo Social Studies	X		98% of the students
8.	Navajo Social Studies	X		83% of the students
9.	English Production	X		93% of the students
10.	English Production	X		94% of the students
11.	General Achievement (1st grade)	1/2	1/2	77% on Letters & Sounds 63% on Mathematics
12.	General Achievement		X	38% on Total Math 24% on English Reading
13.	Navajo Literacy		X	36% of the students
14.	Navajo Literacy			24% of the students
15.	Language Production	X		89% of the students
16.	Navajo Social Studies	X		100% of the students
17.	Navajo Social Studies	X		100% of the students
18.	English Production	X		83% of the students
19.	English Production	X		91% of the students
20.	General Achievement Kindergarten:	1/2	1/2	8.6 points gain on Letters & Sounds; 3.2 gain on Mathematics
	First grade		X	5.0 points gain on Letters & Sounds; 3.7 gain on Mathematics
21.	Mathematics	X		86% of the students

VI. Summary of Student Achievement

Table I summarizes student achievement. Overall, 12 of 21 achievement objectives were met. Three more objectives were half met (one of two components being met). Generally, achievement towards the objectives that were not met at criterion level was significant.

Achievement on Criterion Referenced Objectives. The weakest area of achievement was in Navajo literacy. At present only a very few pilot projects are even attempting to teach children literacy in Navajo. This was Ganado district's first year in developing a Navajo literacy program. Considering the lack of materials available, the scarcity of trained teachers and the newness of techniques for teacher training, plus the lack of any full developed curriculum model, the results of this first year at Ganado were impressive. One first grade class met and exceeded the criterion of the objective. Student progress in the other first grade classes did not meet the objective criterion, but good progress was made by individual students. The evaluators found the level of development of the literacy program to be very impressive for the first year of such a project.

In all other subject areas, language production, oral English development, arithmetic and Navajo social studies, the student achievement exceeded the established criteria of the objectives. Student progress in language production and English production was high. All objectives in these content areas were met. The results in arithmetic were also impressive. Students were given five story problems in Navajo. Deriving and working math problems from a verbal problem is more challenging than merely working a computation test. The majority of students answered all the problems correctly. Overall, 86% of the students met or exceeded the criterion level of the objective.

The greatest progress was made in Navajo social studies. At both the kindergarten and first grade levels student achievement far exceeded the criteria levels. At the first grade, 100% of the children met the criteria levels of the two Navajo social studies objectives. Progress in this area is important because students' self-concept is related to their knowledge of and their attitudes towards their cultural history.

Achievement on Standardized Tests. In three areas student achievement met or exceeded the criteria of the standardized test objectives. Kindergarten students met their objective on the Letters and Sound subtest of the SESAT for two objectives, and the first grade students met one objective for the Letters and Sounds subtest of the SESAT. Although the criteria levels were not met, mathematics achievement on both the SESAT and the CAT by the first grade students was relatively high. Only on the CAT reading subtests was the percentage of students meeting the objective quite low. Two reasons for this were discussed for the assessment of Objective 12. The criterion level of this objective was inappropriately high for any group of students. In addition, the Ganado first grade students were being assessed by a Grade 2 level edition of the test in the area of English reading. These children had been exposed to reading in English for approximately 3 months prior to testing.

In addition to the problems with the CAT reading subtests for this population, some serious questions about the use of the Navajo version of the SESAT and about the validity of the TOLD test. The evaluation team found it exceedingly diffi-

(Summary of achieveemnt)

cult to understand and apply the various norm scales provided by the publisher of both tests. They appear to be too general in some cases, and quite vague in others. The content of the Navajo version of the SESAT has yet to be determined to be relevant to the language development of young Navajo children. As a measure of academic achievement, the TOLD test seems inappropriate since it is a measure of language dominance.

VII. Conclusions and Recommendations

Conclusions

1. Good progress in student achievement on the prject's objectives was evidenced in all areas of the curriculum.

2. The project made excellent progress toward meeting the established goals. 17 of 19 goals were met or substantial progress was made toward achieving them.

3. The areas of great achievement were in Navajo social studies and the development of oral English language production.

4. The Navajo literacy component of the curriculum progressed substantially throughout the year. Considering the novelty of such a curriculum, the lack of trained teachers and teaching training programs, and the lack of materials to teach from, Ganado's first year in a Navajo literacy program showed exceptional progress.

5. Teacher and project staff morale was excellent throughout the year. Teachers were very enthusiastic about the program and believed that student attitudes and participation were much better than in the past as a result of the increased use of Navajo in school.

6. Strong administrative support for the program was evident, particularly the support of the elementary school principal.

7. Teachers and teacher-aides have had opportunities to increase their competencies. In-service training and on-site college course work emphasizing bilingual education have been made available by the school district.

8. A significant amount of teacher-made materials for use in the classroom has been developed. Considering the critical need for adequate materials for teaching Navajo literacy and mathematics in Navajo, the Ganado teachers produced a number of fine teaching materials in these areas.

9. Parents are actively involved in the school and in the bilingual project. Parents served as teacher aides, participating directly in academic and cultural instruction. The PAC was active and met on a monthly basis with good attendance. It made recommendations and approved project modifications.

Recommendations

1. The Ganado Title VII program should be refunded. Substantial progress has been made, which was reflected in student achievement and in parent involvement. The curriculum included a biliterate program which has made excellent developmental progress.

2. The project should be expanded to include the second grade for the next school year.

3. The introduction of English reading should be delayed until a firm foundation in the basic reading skills has been developed in Navajo. It would be expected that this would take at least a full year of reading instruction. It is recommended that the introduction of reading in English be delayed until the second grade level.

4. If reading in English is delayed until second grade, the California Achievement Test should not be administered until the end of second grade.

5. The school district should re-examine the objectives of the project in light of students' performance. Some objectives are very important and might be expanded. Other objectives may be unrealistic and may need to be modified or discarded.

6. The overall instruction model--the Cooperating Teacher Model--should be evaluated and reviewed. The district may want to strengthen some aspects of the model and may want to discard aspects that have not been effective. Specifically, homeroom teachers in both Kindergarten and first grade should be prepared to reinforce other teachers' academic areas during the self-contained afternoon portions of the model.

7. With regard to standardized tests, it seems apparent in the assessment of the standardized testing objectives, that no reliable, effective measure of student progress in either academic or oral language skills exists in the Navajo language. Use of standardized English achievement tests is usually inappropriate for the following reason: Navajo primary grade children in bilingual programs are taught many of the usualy academic skills in their native language. At Ganado the proportion was roughly 75% of the school day in Navajo, 25% in English. Transition of skills learned in Navajo to English is gradual over several years of English language development. To evaluate students' acquisition of skills in first grade by means of English language tests puts them at a disadvantage and almost certainly underestimates their academic growth. Such tests are not likely to give a reliable picture of how much children have learned or of the value of specific content they have been taught.

In light of the inappropriateness of English standardized tests to evaluate student achievement in a Navajo language curriculum, it seems that at this point the most valid evaluation method for Navajo language curricula is use of criterion referenced tests. At present, they have the best validity in measuring the curriculum objectives and student achievement. The value of this method is, of course, dependent on the quality of the objectives.

(Recommendations).

8. Standardized achievement tests in English do seem to be appropriate to study the long-term results of a bilingual curriculum on the transfer of skills to the second language (English), and of the gradual development of English language proficiency. It is assumed that at some point, not able to be specified at our present level of knowledge, bilingual students could be expected to achieve a broad range of English skills such that their achievement on a standard English language test would approximate that of the native English speaking population. For this reason, it is recommended that the CAT continue to be administered to the students in the Ganado Title VII project for a number of years, not as an achievement objective, but to collect longitudinal data that may indicate trends in the students' mastery of English and academic skills, and the long-term effects of the bilingual curriculum.

Ganado Public Schools
Title VII Project - Evaluation

Site Visit Report

Date: October 8, 1976
Present: Paul Rosier, Evaluation Team
Margaret Wilcox, Project Director

Summary:

Mr. Rosier met with Mrs. Wilcox between 9 am and 12 pm. They reviewed the format and descriptions of the project objectives and goals. Each objective was discussed to determine if the objective was adequately described and measurable. Where needed, criteria for determining if the objective has been successfully met was discussed. Mrs. Wilcox tentatively approved the objectives with suggested modifications. She will discuss the modifications with the school principal, Mr. Albert Yazzie; if he approves, the objective format and description will be finalized.

The methods of evaluation, the person(s) responsible for evaluation, and the time table for assessment of each objective and goal were discussed. The project staff and evaluation team will need to coordinate these activities carefully in order to assure an effective evaluation.

At 1 pm. Mr. Rosier attended a Parent Advisory Committee meeting. Seven of the ten members were present. Mrs. Wilcox and Mrs. Knowki, the parent coordinator, discussed several matters related to the project. Portions of the Stanford Early School Achievement Test (SESAT) were administered to the parents. They seemed to enjoy the experience and expressed a desire to take the entire test at a later meeting. The meeting was well organized and lasted approximately two hours.

At 3 pm. Mr. Rosier and Mrs. Wilcox discussed the next site visit, which will be October 22, 1976. The primary purpose of this visit will be to explain the evaluation design to the teachers. The role of the teachers in the evaluation will be discussed. The methods for evaluating each objective will be explained and teacher-input will be encouraged. The forms for keeping records of student progress will be explained.

The evaluation team will submit an explicit evaluation design. The design will outline the responsibilities of the project staff and evaluation team for carrying out the evaluation.

Ganado Public Schools Title VII Project

Site Visit Report - October 22, 1976

On October 22, 1976, the evaluators met with the bilingual teaching staff, which included teachers and teacher aides from kindergarten and first grade, and the Project Director, the Parent Coordinator, the school Principal and the Federal Projects Director.

Mr. Rosier presented a general description of the evaluation, giving an overview of the role and philosophy of the evaluators, and described the relationship of the evaluation team to the project. Six specific objectives were discussed with the whole group to determine what would be the most appropriate techniques for evaluating those objectives. The distinction between goals and objectives was also discussed. After the general presentation, the group was divided. Mrs. Farella met with the kindergarten staff, Mr. Rosier with the first grade staff. In each meeting the specific objectives for that group were reviewed.

The kindergarten group discussed methods for testing the kindergarten teaching objectives (24 criterion referenced test). The suggestion was made to reorganize the objectives into areas of ESL, math, and language arts and social studies for the respective teachers to evaluate. Use of the record sheets was explained and practiced. Individual teachers were identified as responsible for testing and collecting and recording data for specific objectives. The kindergarten teaching staff generally felt that the lack of the parent aides made moving from classroom to classroom difficult for the students (the funds to hire them were not yet available). The large number of activities for kindergarten children seemed to restrict the time available for teaching the concepts in the criterion referenced tests. The parent aides are expected to be hired in early November. Suggestions and alternatives for shring teaching responsibilites and evaluation of the teaching objectives were discussed.

The first grade teachers proposed an additional objective for mathematics achievement, and this was agreed to. The evaluators will forward a modification of the evaluation design to include this. Record forms for individual objectives and class records were discussed. Examples of recording procedures were demonstrated and everyone participated. The mapping portion of the design was reviewed so each person knew which of the objectives they were responsible for. Individual teachers were identified as responsible for testing and collecting and recording data for specific objectives. The schedule for testing was also discussed.

Mr. Rosier and Mrs. Farella met with Mrs. Wilcox to review the day's activities. The terms of the contract were discussed, after which the evaluators met with Mr. Jennings who suggested a format for the agreement for consultant services. An agreement was typed and submitted to Mrs. Wilcox.

The next site visit will be by Mr. Rosier on October 29, 1976.

Ganado Public Schools Title VII Project

Site Visit Report - October 29, 1976

The purpose of this visit to become acquainted with the organization of the project and the physical layout of the classrooms. Mr. Rosier arrived at approximately 1:00. He met briefly with Mrs. Wilcox, then together they visited the classrooms at the kindergarten level.

The classrooms at the kindergarten level were physically attractive. Bulletin boards were well organized and children's work was displayed--e.g., usually art work. There was evidence of emphasis on both English and Navajo skill development. Since it was Friday afternoon and Halloween, there was little formal instruction, but Mrs. Bessie Yazzie was reading a story in Navajo to her class.

The first grade rooms were equally well organized. The decore again showed the emphasis on instruction in both Navajo and English. Formal instruction was limited, but Mrs. Gloria John had an interesting adaptation of musical chairs. She used Navajo music and children used the round-dance step as they circled the chairs.

The atmosphere was positive, though no formal instruction in literacy was being conducted. There was ample evidence in the form of children's work, displays, worksheets, games, etc., that literacy is being taught. Teacher morale seemed high and enthusiastic.

At 3:00 Mr. Rosier met with Mrs. Wilcox and reviewed tha class visitations. Some minor concerns were discussed, such as using a consistent system for the days of the week.

At 4:00 p.m. Albert Yazzie, the principal, joined the discussion. He expressed concern over Mrs. Wilcox leaving the project, but he personally is committed to the continuation and refinement of bilingual instruction in the school.

Ganado Title VII Project

Site Visit Report

Dates: December 9, 1976

The purpose of the visit was to determine if the program was moving in the direction of the goals and objectives of the project. The visit also had the purpose of verifying that the organization of the program was being conducted in the manner prescribed in the proposal.

Description of the visit

The morning of December 9, 1976, was spent visiting classrooms. The primary objective was to visit all four kindergarten classes that morning. Two first grade classrooms were also observed because the two teachers were leaving for a conference in Albuquerque.

At the kindergarten level, Mrs. Farella visited Mrs. Williams' and Mrs. McClanahan's classes, and Mr. Rosier visited Mrs. Yazzie's and Ms. Bia's classes. Children were receiving instruction in the specific skill area each teacher was responsible for. For example, children in Ms. Bia's room were working on kinship. In all classes observed, children were receiving instruction in the language designated for that classroom and subject. For example, Mrs. Williams was teaching a Distar lesson in English. Mrs. McClanahan was working on math concepts in Navajo.

The two first grade classrooms visited were Ms. Braun's and Mr. Thompson's. Again, the teachers were providing instruction in the specific skill area(s) they were responsible for and in the language designated for each classroom. Evidence of the development of materials, particularly in Navajo, was excellent.

In the Navajo Language classroom the teachers often repeat instructions in English after giving them in Navajo. This is done because some students in the project are English dominant.

The afternoon was devoted to interviewing staff and to a meeting with the teachers. Three teachers from each grade level (K-1) were also interviewed. Mrs. Farella interviewed Ms. Bia, Mrs. Williams, Mrs. Yazzie, and Ms. Braun. Mr. Rosier interviewed Mrs. Knoki, Ms. John, and Mr. Thompson. Mr. Yazzie, the principal, was interviewed by both evaluators.

After classes were dismissed, the evaluators met with the kindergarten and first grade teachers. The evaluation responsibilities of the teachers were reviewed. Individual teachers were reminded of which objectives they had to collect data for. Two evaluation instruments in

Navajo and one in English were proposed by the evaluators and reviewed by the teachers who would use them. Questions raised by the teachers were discussed and answered.

On Friday, December 10, 1976, the remaining kindergarten and first grade classrooms were visited. Mrs. Farella visited Ms. Jeness', Ms. Baat's and Ms. Bia's classes. Mr. Rosier visited Ms. Swinger's, Ms. Wilcox's and Ms. John's classrooms. Again, instruction was observed being conducted as specified in the project. Teachers provided specific skill instruction in the language designated for their classrooms.

The evaluators then met with Mr. Tom Jennings, the Federal Projects Director and gave a short summary of their visit. Several possibilities for further development of the project were discussed.

Conclusions

1. The project is operating in the manner specified in the proposal. Each teacher is responsible for certain skill areas. The language of instruction (Navajo or English) has been designated for each classroom. Children rotate in the morning from classroom to classroom.

2. Children in the bilingual project are receiving initial literacy in Navajo.

3. Content areas are introduced in Navajo. Some teachers repeat instructions in English immediately after giving instructions in Navajo.

4. The project is moving in the direction of the curriculum goals and objectives. The only area in which the goals and objectives are not as yet being implemented is the parent aide program. As of this site visit, the district has not received the JOM funds necessary to hire the parents.

Recommendations

1. Parent aides should be hired as soon as possible.

2. In-service training should continue. The project has developed a staff with effective competencies. The staff is now in a position to refine and expand their competencies, and continue to increase their effectiveness in teaching.

3. Suggested topics for in-service training might be: (a) Navajo culture and history--many teachers requested further training in this area; (b) identifying and writing specific objectives for a given lesson, and implementing such objectives; (c) materials development--group projects for developing curricula materials in each language.

4. It is recommended that teachers not mix the two languages when giving instructions. Teachers should give complete instruction or a complete concept in Navajo first, then repeat the information completely in English. This helps provide adequate models for children's language development.

Submitted by:

Paul Rosier

Merilyn Farella

Ganado Title VII Project

Site Visit Report - April 13, 1977

The site visit was conducted by Merilyn Farella. The purpose of the visit was to (1) monitor progress by the teachers in collecting data for evaluation of the objectives; (2) conduct interviews of the teachers to gather data for assessing the project's goals; and (3) collect and review all records pertinent to staff development and inservice training, materials development, the parent involvement program, and overall management of the project. Kindergarten classrooms were also observed.

In the morning Ms. Farella observed the four kindergarten classrooms. Appropriate use of both the Navajo and English languages was observed in each room. Children were involved and seemed to have progressed in both Navajo literacy and oral English development. Very competent math teaching in the Navajo language was also observed.

Six teachers were interviewed using the questionnaire developed by the evaluators to assess the project's goals. The project seems to be developing toward the specific goals stated in the proposal, and to be moving in the direction of the general goals of Navajo bilingual education, from the teachers' perspective.

The project director reviewed in detailsall aspects of the in-service training and staff development projects for the school year, particularly those since January 1977. The CACTI workshop' in March was particularly valuable. Members of the Ganado Title VII staff have also participated in workshops outside the school district, disseminating project ideas and materials. The evaluator was able to observe the parent aides working both in classrooms and in their regular daily meeting after school. They have made a large number of fine arts and crafts products and are teaching these skills to children, as well as working on regular academic subjects with the children. The parent coordinator has been extremely effective and directing the parents' involvement in the school. The project director review minutes of the last three PAC meetings. PAC members have made a number of visits to the classrooms to observe the bilingual program in progress. One member of the PAC has has had a prolonged illness; otherwise, the other eleven members have been in regular attendance at their meetings.

Teachers' evaluation data gathering appears to be on schedule. The final testing day for the criterion referenced objectives will be April 22, 1977. The standardized testing program with the SESAT will be conducted during the final site visit April 20 by Mr. Rosier. Testing with the CAT was completed the week of April 11. Plans for the final evaluation visit by Mr. Rosier were discussed. In general, the project seemed to be functioning smoothly and according to the model described in the proposal. All evaluation procedures seem to be functioning as scheduled.

Ganado Title VII Project

Site Visit Report - April 20, 1977

The site visit was conducted by Paul Rosier. The purpose of the visit was to: (1) observe instruction; (2) observe standardized testing; (3) conduct interviews; and (4) make final preparations for the final evaluation report.

The four first grade classes were observed--Ms. John's, Ms. Wilcox's, Mr. Thompson's, and Ms. Braun's. Mr. Thompson and Ms. Wilcox were testing students on the literacy and math objectives. They both were using appropriate procedures. STudents in Ms. Braun's class were doing an art project. Ms. John was conducting a music lesson in Navajo. Teacher morale was very high and students were attentive and seemed to be learning.

The SESAT test was being administered to first grade students in two classrooms. The tests were administered in Navajo by trained teacher aides. Standardized procedures were being used.

The project director, parent coordinator, and the school principal were interviewed. The interviews were designed to obtain data pertinent to the goals stated by the project. In general, the interviews revealed that the administration of the school and project believe that the bilingual program is developing in the desired direction expressed in the goals.

The primary purpose of the visit was to determine if the time line for gathering data for the final evaluation report was on schedule. All teachers were confident that they would complete their assigned testing by April 22, 1977. They all had evidence that testing was in progress. The standardized test will be completed and the results from the scoring service should be available no later than the first week of June 1977.

Conclusions:

(1) Teacher morale and student involvement remain at a high level.
(2) The project is developing in the direction expressed in the goals of the proposal.
(3) Teachers are gathering data and are on schedule.
(4) Standardized test procedures were being used in the administration of the SESAT.

Suggestions:

(1) The SESAT could be administered to a large group, such as two classrooms together.

(2) The time suggested for sittings of the SESAT are based on the English version and may not be appropriate for the Navajo version, i.e., the test takes much longer in Navajo than it does in English. Therefore, a sitting should be based on a period of time rather than the completion of a subtest.

(3) The math test could be administered in small groups rather than individually. The results should be similar and this would reduce the overall time for testing the math objectives.

Signature page

We the undersigned certify that this Final Report of the Ganado Public Schools Title VII Project—Saad Naaki Bee Olta'—is an accurate assessment of the progress of the program to the best of our knowledge.

Paul Rosier

Merilyn Parella

Appendix A

Staff Development and In-service Training

Staff Development and In-service Training

Courses	Participants	Credit
Fall 1976		
Contemporary Developments in Bilingual Education Northern Arizona University	3	3
Methodology of Teaching ESL Northern Arizona University	9	3
Spring 1977		
Speech 110 College of Ganado	15	3
Summer 1976		
Contemporary Developments in the Navajo Language - Northern Arizona University	12	3
Teaching the Bilingual Child Northern Arizona University	12	3
Summer 1977		
Contemporary Developments - Principles of Curriculum Development for Bilingual Education	11	3
Development of Curriculum Materials Northern Arizona University	11	3

In-Service Workshops

DISTAR Workshop Oct. 22, 1976	35 aides
Classroom Management Workshop	Title VII teachers and aides
CACTI Workshop (Lau Center) March 1977	Title VII teachers and aides
Pre-Service Workshop Aug. 1976	Title VII teachers and aides
Training by Southwest Research ASsociates in administration of 1) Test of Language Dominance (TOLD) 2) SESAT (Navajo version)	8 aides
Kayenta Public Schools Materials Workshop	Project director; 1 teacher

Appendix B

Project Developed Materials

Project Developed Materials

The following material has been developed by the project staff, teachers, teacher aides, and parent aides. In most cases students assisted when possible.

Booklets written in Navajo literacy teaching materials --i.e.,
alphabet cards
sound-blending cards
seatwork in Navajo
charts
games

Mathematics materials in Navajo:
charts
games
flash cards

Social Studies materials in Navajo:
posters
charts
clan charts
displays
stories

Traditional Arts and Crafts - produced by the students, parent aides and/or teachers.
flower making
basket weaving
rug weaving
ojo making
dolls
quilts
bead work
hair ties
old and new hogans
games
hand pupets
drums
animals made from clay and wood.